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THE BRISTOL MEDICO-CHIRURGICAL JOURNAL

A Journal of the Medical Sciences for the

WEST OF ENGLAND AND SOUTH WALES

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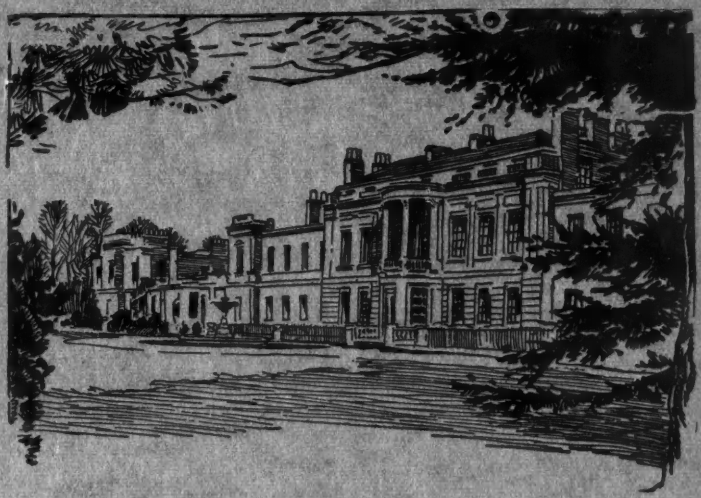

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The Bristol
Medico-Chirurgical Journal

A Journal of the Medical Sciences for the

West of England and South Wales

"Scire est nescire, nisi id me
Scire alius sciret."

JANUARY, 1951

SOME SURGICAL MILESTONES

The Presidential Address, delivered on Wednesday, 11th October, 1950, at the opening of the Seventy-second Session of the Bristol Medico-Chirurgical Society

BY

W. A. JACKMAN, *T.D.*, F.R.C.S.

Surgeon, United Bristol Hospitals

In this address I propose to remind you of some important milestones on the highway of surgery, now accepted as a matter of course, but which indeed have changed the whole trend of surgical practice. In order to give our younger members some idea of the period which I propose to cover perhaps I ought to say that I first visited the Bristol Royal Infirmary some time in the year 1911. As a second year student burning to get a taste of what was to come, I ventured into the Grieg Smith theatre where Dr. James Swain was amputating a breast. The anaesthetic, chloroform and ether, was administered by the late Dr. A. L. Flemming; and some 12 feet distant from the anaesthetist's table the flames of an open fire danced merrily in the grate, occasionally stoked by the theatre sister, Sister Fanny Gross. Subsequently on that day, I remember seeing Dr. Swain enter his carriage, a Victoria, a type very popular with the medical profession in those days.

With this vivid impression still in my mind, you may understand why I feel it imperative to refer briefly to the change in the methods of transport over these years. For what we now accept as a foregone conclusion, rapid, faultless transmission from place to place, has but recently evolved from the horse age, through a period of distinct mechanical uncertainty to that of the present day.

Not only has this revolution had a profound effect on the doctor's perambulation but also on that of the patient. My contemporaries will remember the snappy horse ambulance owned and run by the City and Marine, which rendered yeoman service to the sick and injured in and around this city; a service in which St. John's also played their valuable part. From this type of vehicle there evolved the motor ambulance. The first of its kind in Bristol was also a venture of the City and Marine Ambulance Corps in the year 1914. (Plate 1.) From this we have passed to the ambulance of the present day, which not only shows a marked advance in design and efficiency but seems to have exceeded in fecundity that of the inhabitants of the district. For it is now unusual to drive more than a few hundred yards without passing a vehicle labelled with its sinister legend: whereas, but a year or two ago, the occasional appearance of an ambulance made one wonder what had happened and where.

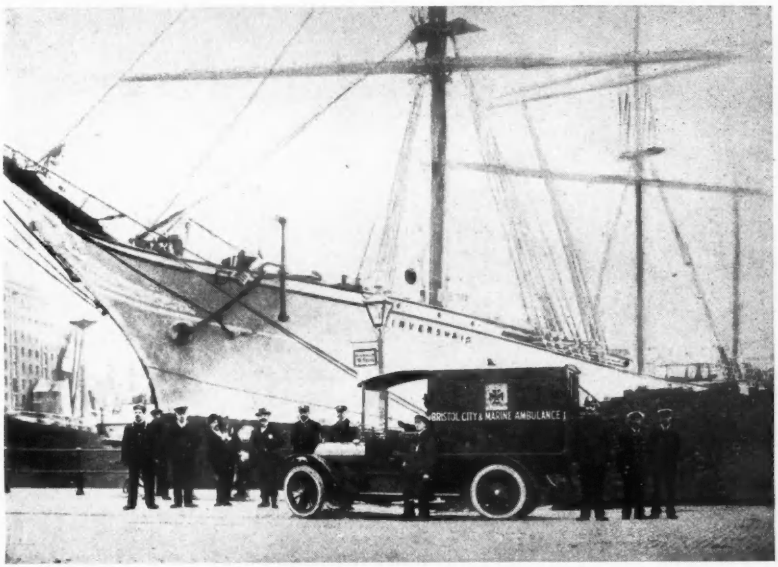
In the early days of which I speak it was quite usual for urgent operations to be carried out in the patient's home because of the difficulty of moving the " very ill " quickly and without undue disturbance, and because the patients themselves, their relations or both, refused admission to what they described as " those dreadful places ".

I would like also to remind you of the profound changes in methods of communication, for the telephone has now replaced the footslogging messenger and its increasing use must have resulted in a more prompt handling of the surgical emergency. In Bristol in 1912 there were 7,000 lines: to-day over 29,000.

1910–20

Commencing in this decade I wish now to refer to some revolutionary surgical procedures.

PLATE I



BRISTOL'S FIRST MOTOR AMBULANCE

A venture of the "City and Marine" in 1914.

Blood Transfusion was not new. It had most certainly been attempted in Great Britain from time to time since 1604, at first using the blood of some animal. Sir Geoffrey Keynes in his book on the subject describes the first transfusion of human blood in this country by Blundel and Cline on 22nd December 1818. There seemed little hope of even reasonable success until 1901, when Lansteiner in Vienna and Shattock in London recognised in the blood the presence of agglutinins and iso-agglutinins which lead to the subsequent division of the blood of individuals into four groups. It took some time for all this to filter through and become stabilised; and it would be very nearly correct to say that until the principles involved were universally recognised and adopted in practice, almost as many lives were lost through blood transfusion as were saved by it.

It was not until we were half-way through the 1914–18 war that blood transfusion really got going, some fifteen years after the recognition of the blood groups. The methods employed for giving it were crude and often complicated and remained so until the perfection of the drip method which we use to-day. Our path is made still easier by the establishment of the blood bank and in this area we must thank Sir Lionel Whitby for his initial organisation.

I shall never forget the difficulty of obtaining donors in those early days; in the services it was not so bad, but in civil practice often very difficult. Housemen and medical students were ready volunteers, for it was not long before the hospitals were willing to pay for blood at the rate of three guineas per pint: the " group 4's " were thereby often saved the pawning of the microscope, and were willing to be bled white in the cause of financial stability. Later on the comparatively well patients, herniae and the like, were asked to volunteer and it was part of the duty of the S.R.O. to keep a list of the " universal donors " in the building. Still later we had a rota of citizen volunteers together with their addresses and telephone numbers. Thus was blood transfusion ushered in as a routine measure in medicine and surgery, a milestone that marked the way to the saving of countless valuable lives.

The drip method I have mentioned. We can hardly imagine hospital practice bereft of this simple procedure—drips into

the veins, under the skin, into the rectum, the oesophagus and the stomach, and as a means of maintaining continuous suction.

Analine dyes. I have not the time to recall any other notable advance in surgical practice in the 1910–20 decade except perhaps the adoption of the analine dyes in the role of antiseptics. I remember two eminent Bristol surgeons, the late Mr. Ferrier Walters and Professor Rendle Short, as members of research teams for the study of the relative merits of mercurochrome and acriflavine. On the one hand Mr. Walters and his team, after extensive investigation, decided that mercurochrome was a most efficient antiseptic and that acriflavine was useless. On the other, Professor Rendle Short and his followers came to the conclusion that acriflavine was a valuable antiseptic whereas mercurochrome was best left in its more appropriate role as red ink. The reports were supported by adequate statistics. Needless to say, when I was H.S. to Mr. Ferrier Walters I used mercurochrome, and when filling a similar post for Mr. Short I used acriflavine. My impression was that the majority of our patients dealt very adequately with their infections.

1920–30

Those of us who can look back to the 1920's must agree that it was an era of " stunts and gadgets ". I do not feel that I must apologise for using these terms, for they are both in the English dictionary: " Stunt; Tour-de-force, special effort, display of concentrated energy, a turn of work, a course of action, an act, a performance, a trick. Gadget ; A small fitting or contrivance in machinery etc., a dodge or device." My own definition of a gadget would be " something with which you perform a stunt". To mention a few:

Plaster of Paris came into its own: and among its most valuable uses was that of immobilising limbs, the site of severe infections, osteomyelitis, open fractures and the like. Headed by an American surgeon, Winnett Orr by name, complete rest, semi-permanent bland dressings and maggots intrinsic and extrinsic became commonly used in practice and certainly marked one initial phase of vast improvement in the treatment of such cases.

Skeletal Traction was very lucidly described by the late

Professor Hey Groves in the British Journal of Surgery for 1928/9, together with his special device for the purpose.

Diathermy and the Sucker. This decade saw the birth of surgical diathermy and the sucker as articles of theatre equipment, now an essential part of operative technique in most fields. The first diathermy apparatus for operative surgery was made by the Genito-Urinary Manufacturing Company in 1924, at the request of the late Frank Kidd. The apparatus is not without its dangers. We soon learnt that it must not be used in close proximity to bone, cartilage and certain of the vital organs, and should be treated with great respect in or near the hollow viscera and at the skin edge.

My research into the origin of the sucker is not very precise. It seems gradually to have evolved from that produced in the world of hydrodynamics to the present-day motor suction pump, which is almost too powerful. In fact, this violent suction can be lessened by the insertion in the circuit of a glass 'Y' piece; and this will certainly prevent soft tissue being sucked violently into the nozzle, and so avoid possible injury to vulnerable structures and friable tissues. The danger of using the sucker as an alternative to the swab is readily apparent, for serious haemorrhage may be overlooked. Where this catastrophe is a possibility some scheme must be adopted whereby careful watch is kept on the amount of blood lost.

Ryle's Tube. In 1926 the late Dr. John Ryle, who died only last March, published a book called "The Gastric Function in Health and Disease". In this he described gastric analysis, the fractional test meal, and his own modification of the Rehfus tube—Ryle's tube. Since that day this simple device has not only served its original and designed purpose. It must have saved thousands of lives; or ameliorated the lot of those inevitably condemned to death during their last days or hours. It has proved of value in pre-operative preparation and post-operative care, in the treatment of ulcers and other gastric conditions. There can be few surgeons who have not cause to be grateful to this distinguished physician for giving us so valuable an addition to our armamentarium.

The 1920's were also marked by the development and elaboration of illuminated endoscopes for peering into the body

cavities through natural and other orifices, and indeed for the performance of surgical manoeuvres thereby.

Truly an era of Stunts and Gadgets.

The President next dealt with the years 1930–40 which he considered remarkable chiefly for the introduction of chemotherapy and antibiotics. He described the discovery, development, uses and abuses of the various agents.

1940–50

We can regard the 1940's as the age of "buttoning-up", the crossing of 't's, the dotting of 'i's and the rounding off of jagged corners. Infusions, transfusions, drips, suction, antibiotics, instruments and appliances have all been and are being improved and developed by a gradual process of evolution. We see advances step by step in every phase and aspect of surgical practice, so that today surgery bears little resemblance to that which was practised 40 years ago, except for the use of the knife and the haemostat.

Vast developments are taking place in the allied sciences. Radioactive isotypes, tracer substances and the like are evolving for our use in diagnosis and treatment. Operations are being undertaken which, but a few years back, were deemed impossible, and the interdependence of the various sciences suggest an era of combined operations.

I must refer to the tremendous forward strides made in the realms of anaesthesia. Earlier I spoke of an anaesthetist at the B.R.I., Dr. A. L. Flemming, now unhappily gone from our midst. I shall always remember him as the anaesthetist who gave as a definition of a surgeon "One who takes life easily". The apparatus which he used was simple in the extreme, a mask and two bottles. Yet he and his colleagues of those days gave most excellent anaesthetics and I often wonder if the anaesthetic risks were not rather in the minds of surgeons, and that hasty and rough handling contributed largely to those complications which did arise. Now the anaesthetic apparatus has become more complicated, and the impressive nature of the modern "set-up" compels our awed respect, for who could doubt that from this emanates the very essence of controlled and perfect narcosis.

I feel I must refer to the almost incredible improvement in the surgery of infancy and early childhood, throughout these

years. With appropriate pre-operative preparation and post-operative management a nursling will survive quite major surgical procedures. Conrad Rammstedt of Münster should be remembered as a pioneer in infant surgery. He discovered by accident a simple operation for the cure of an otherwise fatal disease, and thereby both directly and indirectly preserved the lives of many hundreds or thousands of infants who have thrived and matured to become valuable citizens.

In my student days we used to see infants suffering from a disease called Marasmus; Galen, Marasmos, " wasting away ". They did. There can be little doubt that many such children suffered from unrecognised pyloric stenosis. A cure having been devised, it became imperative to recognise the condition and submit the patients for treatment. In Bristol in 1914 126 infants were notified as having died of marasmus, a death rate of 16·3 per 1,000 live births. In 1944 there were 6 such deaths (0·8 per 1,000) and in 1949 there were no deaths registered from this disease.

I now wish to refer to the late Thomas Carwardine who retired from the staff of the B.R.I. in 1926, and died about three years ago. He was a surgeon renowned for his technical skill; those of us who remember his work will recall each of his operations as a poem of perfect precision. He gave to surgery the anastomosis forceps. His activities covered the whole field of surgery and he was capable of performing any of the operations of surgery with equal facility. I cite him merely as a representative of any surgeon of his day in the top rank of his profession. He practised in the days when this country was probably at its wealthiest, when there was no shortage of manpower, money or material, when a fee of one guinea was paid as a golden sovereign and a silver shilling. Now, when we are told we have never been poorer in every possible respect, when manpower is short and a guinea represented by a worthless piece of paper and a disc of cupro-nickel, the field which he covered requires:

The Gynaecologist,
The E.N.T. Surgeon,
The Orthopaedic Surgeon,
The Plastic Surgeon,

The Neuro-Surgeon,
The Genito-Urinary Surgeon, and
The General Surgeon or Herniotomist and
Appendicectomist.

There are signs that still more "high specialisation" is imminent. We have never been poorer, yet we live more and more extravagantly.

We see then, over these four decades vast improvements and advances in the field of surgery. Yet we must universally regret and admit that our ignorance of the aetiology, course and treatment of cancer remains little short of appalling, a state of affairs which is certainly not for want of effort. The best brains of our profession are daily directed towards the solution of the problem in all its aspects, so far without result. To refer to our own city, in Bristol the death rate from cancer has steadily risen from 113 in 1914 to 187 per 100,000 of the population in 1949: when 823 persons were registered as having died of cancer in a civilian population of 439,740. Perhaps the 1950's will bring us greater hope.

THE XXXIX LONG FOX MEMORIAL LECTURE

Delivered in the University on October 17th, 1950

BY

SIR WILLIAM SAVAGE, M.D., B.SC.

ON

SOME FOOD INFECTION PROBLEMS

For each food infection outbreak we can postulate four essential factors. Two obvious ones are the organism responsible and the particular vehicle through which the organism gains access to man. Equally important is the reservoir from which the organism gained access to the food vehicle and the fourth factor is the path taken from the reservoir to the vehicle (food or water, which also is a food). No outbreak can be said to be fully explained unless all four factors have been ascertained. Time will not permit a complete discussion on all food infections, but I hope to deal with the two most important groups: the enteric group and acute food poisoning.

THE ENTERIC GROUP

The three recognized types are: typhoid fever, due to the typhoid bacillus; paratyphoid fever due to B. paratyphosum; and dysentery infections, for which various strains of dysentery bacilli are responsible. I shall not be able to discuss dysentery infections, but many outbreaks have been spread by foods. Their severity closely depends upon the strain responsible. The comparatively rare food outbreaks due to the Flexner strain may be severe with many deaths while the much commoner Sonne outbreaks are mild and usually with little or no mortality, as in one I investigated spread by ice cream almost certainly infected in preparation.

Typhoid fever and paratyphoid fever are clinically much alike, but the latter is much milder and with a low fatality rate. They show important differences however in the ways they are

spread. Until recent years typhoid fever was essentially regarded as a water-spread disease, with milk a poor second, with shell-fish looming as an important vehicle of spread, while foods other than milk rarely were involved. To-day I think we can record a change of emphasis. Water is a less predominant vehicle although, of course, still of primary importance, witness the extensive water-spread Croydon outbreak. So far as records go shell-fish (oysters, cockles, mussels) are rare vehicles: this is a tribute to our Public Health control over water and shell-fish.

Paratyphoid. It is of the greatest interest that in the allied disease paratyphoid we find very different vehicles. In a paper published in 1942 on an epidemiological study of 40 outbreaks of paratyphoid fever the vehicle in no less than 17 (42 per cent.) was cream cakes or other confectionery, 14 were associated with other foods (milk 8, ice cream 2, other foods 4), water only 2, direct case to case infection 3, not ascertained 4. Turning to records available to me in Great Britain since my report was published of 11 typhoid fever outbreaks, the vehicles were water 3, milk 3, confectionery 0, other foods 4, doubtful 1. The 9 paratyphoid outbreaks were water 0, milk 3, confectionery 3, infection from a contaminated bathing-pool 1, doubtful 2. The same sort of differences are maintained, but clearly typhoid fever is becoming more food spread. I have not noted dairy products as vehicles in either disease in this country but in Austria fairly recently, butter has caused three outbreaks and cheese a good many outbreaks in U.S.A. and Canada, all of them being typhoid fever.

These two diseases are particularly interesting to-day because recent bacteriological work has given us bacteriological weapons which enable their epidemiology to be studied with an intensity and accuracy quite impossible only a few years ago. One such aid is that the methods for the detection and isolation of both typhoid and paratyphoid bacilli, not only from human sources (excreta, urine, etc.), but from suspected vehicles such as water, sewage effluents, foods and the like, are so enormously improved that what was once a hopeless task now yields a good percentage of positive results. A second advance is the ability we now possess to divide both organisms into a number of types and, using the proper procedure, to determine the type of the strain responsible

for the outbreak. This is a valuable aid to linking up cases with vehicles and reservoirs, and has yielded brilliant results. A third weapon is that we now have much more reliable means of ascertaining if a person is a carrier of these organisms, not only by cultural tests, but by the presence of special antibodies in the blood (vi-antibody). The importance of this is referred to later on. We owe a great debt to Dr. Felix for his work on this aspect and on phage typing.

When we turn to the reservoirs of infection, we regularly meet a carrier of the responsible bacillus. In typhoid fever this is practically always a chronic carrier, but in paratyphoid fever often the carrier is not a chronic but a temporary one or may be an infected person with few or no symptoms. The distinction is of some importance and merits some explanation. In cases of either disease the bacilli tend to persist in the body and to be excreted in faeces, urine or both long after all clinical symptoms have subsided. There is, however, a gradual and usually an orderly reduction of this infection with time and most cases have cleared up at the end of a few months. In some 3 per cent. of both diseases the bacilli persist for years and these are the chronic carriers. In paratyphoid outbreaks it is common to have many persons who are infected, but who do not develop recognizable symptoms. These persons carry the bacilli, but fortunately for only limited periods, and form the transitory carrier group. So far as my studies go they are an important source of infection in paratyphoid fever and may be more important than the chronic carrier.

In many outbreaks the chain is complete, i.e. the reservoir, a chronic or temporary carrier, the path is the carrier infecting food or water, which then is the vehicle. The problem of prevention involves destroying one or more of these links in the chain. Obviously the main link to be snapped is the reservoir, for in practically every outbreak the reservoir is a carrier. Two lines suggest themselves for preventive measures.

One is to examine every person associated with work which facilitates the transmission of infection, such as all persons concerned with milk and workers handling food in preparation and in distribution. This procedure is not really practicable. To ascertain whether a person is or is not a carrier is a long and

complicated business needing repeated bacteriological examinations of excreta, etc., and requiring also the willing co-operation of the workers. When we also realize the frequent changes of staff, this method as a routine procedure is quite impracticable: and examinations less complete are useless and give a false sense of security. We can, however, minimize the risk of a carrier being a source of infection by inculcating a high standard of personal hygiene, the most important item being invariable washing of hands after use of the closet. Facilities must be provided to make this an easy practice.

There is one line of prevention which is very hopeful. I explained above that only some 3 per cent. of typhoid or paratyphoid cases become chronic carriers and the other 97 per cent. are safe. Detect and control these 3 per cent. of chronic carriers and we go a long way to reducing risks from the carriers. At long last something is being done in this direction and this is possible because of one recent bacteriological advance. Experience shows that the absence of vi-antibodies late in the disease coincides with absence of the carrier state. It is a recommendation of the Ministry of Health since 1946, that before discharge from hospital every convalescent should have a blood test for vi-agglutinins. If they are absent no further action need be taken. If present, and in early stages of convalescence nearly half may be positive, then a second test should be made three months later: and if still positive a detailed bacteriological investigation made. In this way the persistent carriers would be weeded out. When found steps can be taken to prevent them working in businesses where infection can be spread and there are powers to this end under the Public Health (Infectious Diseases) Regulations, 1927. This is as yet not a compulsory procedure and is being tried out experimentally, but it is on sound lines. For technical reasons we know that by no means all chronic carriers of these two diseases will be detected: but if we only detect a material proportion it will be a most important preventive measure.

ACUTE FOOD POISONING

The same four factors in causation operate, but the clinical picture is very different and vehicles, reservoirs and paths are

unlike those found with the enteric infections. Excluding the rare botulism there are two main types of bacterial food poisoning which include the great majority of outbreaks in this country. The organisms responsible in one group are strains of salmonella bacteria and in the other a special type of staphylococcus which produces enterotoxin.

Salmonella food poisoning. When I started my investigations on this group, nearly fifty years ago, only three different types in the group were known: now they muster three hundred or more and the list is constantly added to. Apart from the one type (B. paratyphosum) they are essentially a group which affects the lower animals (including birds). They set up infections in many animals: cattle, rodents, pigs, horses and many birds including ducks and hens. Recently they have been isolated from cats and from dogs. Their main reservoir is an animal source and animals are found as carriers after an infection. Different Salmonella types seem to have a predilection for certain animal groups. To give one example, S. dublin is a type fairly widespread as a cause of disease in young cattle and may persist in the carrier state. A good many outbreaks of food poisoning are on record associated with this type and with milk as the vehicle, the path to the milk being the bacilli excreted into the milk or in infected dung contaminating the milk.

For many years I have taught that (apart from paratyphoid fever) chronic carriers of salmonella are not met with in man, since when infection occurs they act as intense irritants and this leads to their elimination within a period reckoned in weeks. As regards acute food poisoning I believe this is broadly true but, as explained below, tends to become less correct. An examination of salmonella food poisoning outbreaks shows the extreme rarity of human chronic carriers. With our improved cultural methods, persons are more frequently being found harbouring salmonella strains, but all or most seem to be recent infections and not the cause of the outbreak. My own opinion is that the salmonella group is in a stage of evolution. It may well be that, as in animals, more types are becoming invasive to man, with the possibility of some enduring as chronic carriers: but much more evidence is needed.

In these salmonella food poisoning outbreaks an animal source is the most probable reservoir, but it is an established fact that after a human attack total elimination takes some weeks and such temporary carriers may act as infective agencies. The path to the vehicle infected includes actually infected ducks' eggs, contamination of food from excreta of rats and mice or of other infected animals (dogs, cats), from infected domestic animals such as cattle or pigs and dried eggs contaminated with salmonella strains. Any food can serve as the vehicle, but the highest incidence is upon handled and manipulated foods like brawn, meat pies, sausages, pressed meat, ice cream and also milk. Naturally, preventive measures must include steps to control salmonella animal infections and to prevent contamination of food from the sources indicated. Special precautions are necessary in the preparation of these made-up foods, and particularly to insist on rapid cooling of all heated foods which may carry infection, to prevent multiplication of salmonella strains in the warm food.

Staphylococcus enterotoxin. These very characteristic outbreaks are due to preformed toxin and not to any infection of the human subject. The poison being all formed, the symptoms come on very rapidly after the food is consumed (two–four hours frequently) and are acute and severe; nausea, vomiting, diarrhoea, severe abdominal pain and collapse being the main signs. The sufferer may feel he is going to die, but practically never does and recovery is rapid.

Our great problem in prevention is that staphylococci are everywhere and we all harbour millions of them, but it is only a very special type which produces this virulent toxin, the so-called enterotoxin, which is a potential culprit. Tests on monkeys have some validity as a differential test and some workers consider a kitten test serves to distinguish this strain, but in this country we have not found it reliable. The only test we can really rely upon is to grow the suspected staphylococcus in a suitable liquid medium, sterilize by filtration and then feed to a human volunteer. If he gets an attack of food poisoning it is the real thing, but so are the effects on the human victim. Obviously until we are able to study the origins and distribution of this type our preventive efforts are greatly

hampered. A simple and reliable differentiation test would be of the utmost service.

The reservoirs of infection are essentially human sources, such as the unhealthy nose and throat and possibly also the healthy nose and throat, discharging ears, sores on the skin in places where they come in contact with food and indeed any local infections. Not infrequently such a toxic strain is found under the finger nails. The paths from these reservoirs to food are obvious and impress the need for measures to exclude persons suffering from the above-mentioned abnormal conditions from handling food for human consumption.

The vehicles vary widely, but prominent are cakes (cream and custard filled) and processed and made-up meat. The second group have been prominent of recent years in this country. A very important fact is that it takes a considerable dose of this toxin to cause symptoms. Again and again we find a food (trifle, cakes, etc.) made overnight and kept in a warm kitchen, harmless when some is eaten soon after preparation, but served next day at a function responsible for an extensive and severe outbreak. There is the same need for rapid cooling after preparation and storage at refrigerator temperature until usage as mentioned for Salmonella infections.

In conclusion, the lecturer emphasized that we have the requisite knowledge: prevention lags not from ignorance but mainly because of administrative difficulties.

STREPTOMYCIN

BY

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AND

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In 1944 Waksman in America announced that the actinomyces, streptomyces griseus, produced a powerful antibiotic, streptomycin, which was highly active against various strains of mycobacterium tuberculosis. This drug has been used for the treatment of tuberculosis in this country in research trials organized by the Medical Research Council, from which it is apparent that we have now a valuable antibiotic for use in certain types of tuberculosis.

Streptomycin has, however, some definite limitations. Unfortunately m. tuberculosis tends to develop streptomycin-resistant strains with great rapidity, particularly during treatment of cases of chronic pulmonary tuberculosis, and also infections of the urinary tract. Sufficient emphasis cannot be laid on this point. Not only may the value of the durg in these cases be limited, but the production of drug-resistant strains of bacteria is a potential menace to the rest of the community. Hence great care in selection of cases for treatment is essential and indiscriminate use of the drug must be condemned. However, certain adjuvants, e.g. para-aminosalicylic acid, may delay the development of drug-resistance.

Streptomycin is not absorbed from the alimentary tract and, therefore, it must always be given intramuscularly as well as directly, where possible, into the spaces which it is desired to render free from bacteria. The drug is excreted by the kidney. After intramuscular injection an adequate blood concentration

is maintained for six to eight hours and, therefore, the injections need to be given from two to four times in twenty-four hours. Excretion of the drug into the cerebro-spinal fluid is almost negligible, so that meningitis must always be treated by intrathecal injections in addition.

Toxic effects are relatively common. After three weeks of continuous treatment most patients show some evidence of eighth nerve damage—slight vertigo and muscular in co-ordination, which tend to pass off gradually. Some however have persistent difficulty in retaining their balance in the dark; and a great many are left with high-frequency deafness, which may only be detected by audiometry, and is of little clinical significance if the child was talking normally before the onset of the disease. Severe deafness develops in a few cases of meningitis. Particularly when the drug is given intrathecally, marked anorexia is usual early in treatment and may be very troublesome. Renal damage and hypochromic anaemia are much more rare, but regular blood counts and microscopic urine examinations are necessary throughout long courses of treatment. A few patients develop signs of hypersensitivity, morbilliform or urticarial rashes, vomiting, pyrexia and eosinophilia. The drug may also act as a local irritant, if given in too high concentration, particularly into the meninges.

The occasional effects on the administrator must also be mentioned. A very persistent dermatitis of the hands, which may spread to the eyelids or even more extensively, has been seen in a number of nurses. Such subjects tend to develop an extreme hypersensitivity, so that they are unable to continue handling the drug or patients receiving it without an immediate reaction occurring.

The use of this antibiotic in tuberculosis is also limited by certain characteristics of the disease itself. The essential lesion, the tubercle, consists of a collection of inflammatory cells with no blood vessels. As the disease progresses caseation develops, adjacent lesions coalesce, and living tubercle bacilli remain in the centre of necrotic tissue, the blood supply to the infected area being still further reduced by the development of endarteritis obliterans in the surrounding vessels. Thus the blood supply may be insufficient to bring an adequate concentration

of streptomycin into contact with the organisms. It is, therefore, not unexpected that, while an acute type of infection, such as miliary tuberculosis, may be responding well to treatment, a focal lesion in the glands or brain may continue to harbour living tubercle bacilli, even after months of treatment; thus providing a constant source of danger until such time as the natural processes of healing may take place. A very long course of therapy may be needed to sterilize all the lesions.

As a result of the research trials it has been shown that streptomycin is of real value in certain types of case, either as a definitive treatment with the object of curing or arresting the disease, or as a prophylactic measure when surgery of a tuberculous lesion is undertaken. The most dramatic results have been achieved in the acute and hitherto lethal forms of the disease, seen particularly in childhood—miliary tuberculosis and tuberculous meningitis. A consideration of the pathology, however, indicates that this drug is useless for the treatment of primary tuberculosis and may even be dangerous, owing to the risk of production of drug resistance.

Many children are infected at some time by the tubercle bacillus, and it has been shown that, in urban areas, 80 per cent. of those reaching early adult life give a positive tuberculin skin reaction (Daniels, 1948). In the vast majority this infection is so minimal that there has been no clinical indication. But under certain conditions, and particularly in very young children, there is ever present the danger of extensive blood dissemination, giving rise to acute miliary tuberculosis: or small silent foci may develop in other organs, particularly the brain. Such foci in the brain may later enlarge, and after rupture into the meninges produce tuberculous meningitis.

The treatment of miliary tuberculosis with streptomycin is now fairly well established. For a period of four to six months the patient should receive continuous daily intramuscular injections of streptomycin: one gramme for children under five years of age and for older patients one to two grammes, according to weight and tolerance. During the first two months of treatment, when it is necessary to maintain a constant high blood concentration, the dose may be divided into four six-hourly injections daily: subsequently it may be given in two

twelve-hourly injections. In the majority of cases there is definite clinical improvement after three weeks and clearing of the lung (X-ray) fields may be seen in four to six months. Continuous watch should, however, be kept for the development of silent lesions in the kidney, bones or meninges; provided these complications do not occur, the results of treatment are very good.

Tuberculous meningitis has proved a much more difficult problem. While treatment with streptomycin is a notable advance, this drug alone, administered by the most effective methods yet discovered, is only a partial solution. The prognosis depends very largely on the stage of the disease at which treatment is started, and also probably on the intensity of treatment given. Research trials in this country (including a series of cases treated in the Bristol Children's Hospital Streptomycin Research Unit) have shown that, in early cases where there are no definite physical signs of meningeal irritation, long and intensive courses of combined intrathecal and intramuscular injections result in a 50 to 60 per cent. recovery rate. But if treatment is delayed for only a few days, until definite signs of meningitis are present, the recovery rate falls to 30 per cent. or lower. Cocchi, in Florence, in the largest series of reported cases, shows continued improvement in his results by using much more intensive treatment: and in his more recent cases the recovery rate is much higher, approximating 80 per cent. He adminsters streptomycin by lumbar, cisternal or subdural routes daily for the first two months of treatment, and subsequently on alternate days until the cerebro-spinal fluid has been normal for two months: intramuscular treatment being given daily in addition throughout the whole period. It is clear from our experience in Bristol, as well as published reports, that success in the present state of our knowledge can only be hoped for if these patients are all treated in special units, where medical and nursing staff become skilled in the technique of the treatment, where detailed pathological investigations are readily available and where meticulous care is taken to avoid cessation of treatment or premature discharge from hospital owing to pressure on beds. The pyschological care of these patients during such a long and necessarily unpleasant treatment is a

major problem and proper educational facilities, including the service of a " deaf-teacher ", are essential.

To be weighed against all the difficulties involved in treatment of tuberculous meningitis is the overwhelming evidence that patients who recover appear to resume normal health, with very rarely any sequelae other than slight high-frequency deafness. Up to date there is no evidence of any gross deterioration in intelligence. One of our child patients won two prizes in an open newspaper competition for an essay and painting while she was in hospital, still on streptomycin treatment. Another child, who became severely deaf, has been awarded a boarding scholarship at the special grammar school for partially deaf girls. A number of the children are attending ordinary school again, and some of the adults are at work.

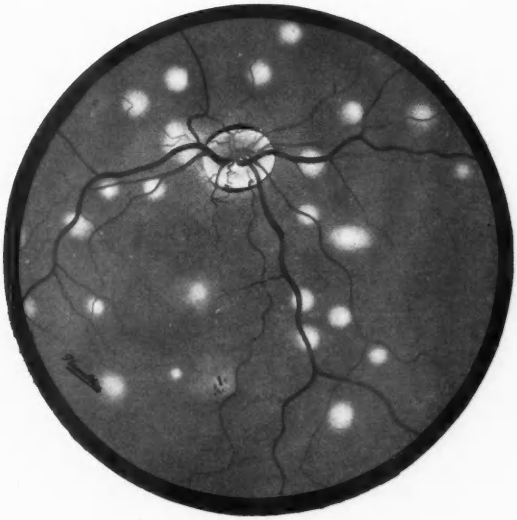
It is clear that much work is still required before it can be considered that, for the treatment of tuberculous meningitis, a satisfactory regime has been worked out. It is possible that the combination of streptomycin with other drugs may give better results and it is hoped that further large-scale research will be organized.

The two following cases were treated at Southmead Hospital, and have not been included in the Bristol research trial, although the same programme of investigation and treatment was carried out. They illustrate some of the difficulties that may arise, and one case shows certain features of unusual interest.

Case 1. John P., aged three years, was admitted to Cossham's hospital on 27th August, 1949. A previously healthy child with no illnesses, he had been in contact with an aunt who was in a sanatorium with pulmonary tuberculosis at the time of his admission. Three weeks before he had had a cold: this was followed by rapid loss of weight and anorexia, and for three days cyanosis and dyspnoea. On admission he was a severely ill child, very dyspnoeic, cyanosed and wasted: there were scattered râles in both lungs. Radiological appearances were highly suggestive of miliary tuberculosis of the lungs. 29th August, 1949, treatment begun: oxygen tent; intramuscular streptomycin 1.0 gramme daily. One week later, Mantoux 1/100 was negative and E.S.R. 54 mm. in the first hour. 16th September, 1949, condition unchanged, except for some irritability: a number of miliary tubercules were seen in both eye fundi (Plate II), and his spleen was palpable; T. 100.8 deg., P. 128. C.S.F.* 3 lymphocytes, sugar 36 mgm., chlorides 670 mgm., protein 75 mgm., slight

* All figures for C.S.F. are " per c.mm."

PLATE II



Fundus Oculi showing Tubercles.

increase in globulin. In view of these findings, his clinical condition and the general distribution of his disease, it was considered that he was an early case of meningitis. Intrathecal streptomycin therapy was then started, giving 50 mgm. daily for fifty days, followed by fourteen days without intrathecal treatment and then a further course of ten days' intrathecal treatment. Some of the injections were given by cisternal puncture owing to difficulty in obtaining fluid from the lumbar theca. The C.S.F. cell count rose considerably and the protein and sugar values continued to be very abnormal. The diagnosis of tuberculous meningitis was confirmed by the culture of tubercle bacilli from C.S.F.; the stomach washings also yielded tubercle bacilli.

After six weeks' treatment there was evidence of improvement, shown by more stable temperature and fall in E.S.R. By January, 1950, he was a cheerful, very active child, gaining weight well (10 lb. since admission), with a constantly normal temperature and pulse rate. The C.S.F. still showed a marked increase in protein, and a cell count varying weekly from 40 to 120 lymphocytes. The choroid tubercles had completely cleared leaving only very small scars. In February he developed irido-cyclitis in the right eye, diagnosed by Mr. Ramsay Garden as tuberculous; vision in that eye became negligible: severe keratitis and conjunctivitis developed in this eye, leaving a scarred cornea. In September, 1950, he is still in hospital, but is very well and has started getting up. Streptomycin treatment was discontinued on May 29th. There has been no pyrexia for six months, and he has gained 19 lb. For eight weeks the C.S.F. has been normal chemically with cells below 7 and the chest X-ray shows complete clearing of the lung fields.

This case is of special interest in the following respects:

(1) The severe picture of disease at the beginning of treatment, with development of meningitis while receiving intramuscular injections.

(2) The large number of choroid tubercles, which cleared completely in five months.

(3) The development of kerato-irido-cyclitis, despite intensive streptomycin treatment for six months.

Case 2. Kathleen H. Aged three-and-a-half years, admitted to Southmead Hospital 8th March, 1950. Her only previous illnesses were two attacks of bronchopneumonia and there was no history of tuberculous contact. Five weeks before admission her whole family had had febrile colds, diagnosed as influenza. After this the patient continued to cough and gradually became languid, drowsy and fretful, with poor appetite and occasional vomiting. On admission she appeared an ill child; T. 103 deg., P. 168, R. 45. Her skin was slightly jaundiced, but her principal physical signs were abdominal. The abdomen was distended, and tender, particularly above the umbilicus; the liver was firm and enlarged to the umbilicus, and the spleen was enlarged down to the left iliac fossa; no free fluid or other abnormalities were detected. In the lungs there were

scattered coarse râles and a few rhonchi. There were no meningeal signs: but three choroid tubercles were seen. Radiology of the chest showed much enlarged hilar glands with fine mottling in the lung fields, suggestive of miliary tuberculosis. C.S.F. showed a typical rise in cell count and protein, and reduced sugar; tubercle bacilli were cultured. Treatment was begun on the day after admission with combined intrathecal and intramuscular streptomycin.

Her clinical response to treatment was good at first, and after three weeks of treatment her high swinging temperature had settled to normal. Her E.S.R. was 12 mm. in the first hour. Her appetite remained extremely poor; there was no gain in weight and no alteration in abdominal findings. Two months after the onset of treatment she was clearly deteriorating; pyrexia recurred with a daily swing of 100 to 101 deg. There was a tendency for the lumbar theca to block and the C.S.F. showed continually raised protein, up to 320 mgm.; the sugar fell to 22 mgm. and the cell count varied from 30 to 70. The chest X-ray showed considerable clearing of the miliary foci. During the third and fourth months of treatment she was drowsy and very irritable, with occasional vomiting suggestive of raised intracranial pressure. On 20th June she became comatose and died on 22nd June.

Post-mortem examination was performed by Dr. Aidin seven hours after death. The right lung showed no naked eye evidence of tuberculosis. The left lung showed a number of tubercules at the base, a Ghon focus in the upper lobe and a large caseating hilar gland. There were other caseating glands surrounding the trachea and its bifurcation. There was no evidence of tuberculous peritonitis, the spleen was large, firm and dark in colour and the liver appeared normal. A thick gelatinous exudate covered the base of the brain, the Sylvian fissures, and the lumbar region of the spinal cord.

Microscopic findings: very scanty centres of tuberculous granulation tissue in the liver; in the lumbar cord the granulations consisted largely of fibrous tissue; extensive tuberculosis of lungs with areas of caseation; no tuberculosis in the spleen.

This case is of special interest since it shows widespread miliary tuberculosis, including lesions in the liver and meningitis, which responded fairly well to three months of streptomycin treatment. The patient died nevertheless from internal hydrocephalus, due to massive exudate at the base of the brain. The formation of this exudate is one of the major problems in the treatment of tuberculous meningitis, since, despite the bacteriostasis produced and the arrest of the disease processes in the meninges and brain, this mechanical blocking of the cerebro-spinal fluid pathway frequently produces a fatal termination.

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Cocchi, C. Exhibition at International Paediatric Congress, Zürich, 1950.

KERATOSIS PHARYNGIS

BY

E. WATSON-WILLIAMS, *M.C.*, M.D., CH.M.

Mrs. Q. M. M., 30, noticed " spots " on her throat and tongue four months ago. She was and is quite well: " the tongue felt uncomfortable " and she then saw the spots more or less as they are now—prominent, irregular, greyish masses on either tonsil, mainly round the crypta magna, on the posterior part of the tongue and on the back wall of the pharynx. Some are fully 1 cm. long, others much smaller; and all firmly adherent—i.e. they are not crypt debris, pus or " membrane ". Some discomfort—no pain.

This condition is not very rare: in some thirty years I have recorded fifty-seven cases, forty-four in females. The cause is obscure. The masses may be few and small, and if confined to the tonsils produce an appearance readily mistaken for follicular tonsillitis. (The absence of fever, pain, and fetor should prevent this mistake: the firm attachment of the masses and their persistence show their true nature—often the patient will say: " That's not tonsillitis, doctor, my throat's been like that for years ".) They are formed of thickened, keratinised, squamous epithelium, are sometimes lobulated or pedunculated, and when large are often stained brown or black by fungi. Some patients get repeated attacks, the masses appearing if they are over-tired or run down: a girl of eleven had had three such attacks beginning each autumn with urticaria and a few days' malaise, and lasting three to four months. In others there is little or no change in appearance over several years—and then, for no obvious reason, the masses may disappear quite suddenly. I have one family: father, son and daughter all being affected. There is no pain, though sometimes some discomfort: but often the condition is discovered accidentally during routine examination.

Treatment. If the masses are confined to the tonsils, and causing discomfort, removal of the tonsils may be desirable. Curetting or cauterizing often seems to stimulate recurrences. The patient should be reassured and given a short account of the natural history. A long course of arsenic is said to be helpful: but as so often the condition resolves spontaneously it is difficult to assess the value of medicines.

Patient, and specimens shown at the Clinical Meeting, 8th November, 1950.

Editorial

The Presidency

Those members of the Bristol Medico-Chirurgical Society who were present at the annual general meeting must have been astonished to hear: " It is a tradition of the Society to choose as President in successive years a physician, a surgeon, a specialist and a general practitioner ". This looks good for the physicians. Anyone who consults the last published list of members* will discover that the chances, for a member of each group, of election to this high and responsible office are about 25 : 13 : 3 : 1. But turn to the list of former Presidents* and it is clear at once that there is no such tradition. We have had two physicians in succession, or two surgeons—even two anaesthetists; but such a sequence as is suggested only once in the last fifty years.

Two traditions, indeed, come down to us from the earliest years of the Society; one, that it accepts the nomination of the Committee, trusting that body to propose the worthiest candidate unhampered by private pacts or secret conventions; the second, that those members who have for several years borne the (often considerable) burden of junior office, are selected for early elevation.† Unless we hold, with Montaigne, that " Dignities and offices are of necessity conferred more by fortune than upon account of merit", the highest honour the Society can bestow should, like a seat in the Prytaneum, reward personal worth and services to the Society—or at the least, long membership and the esteem of colleagues. To say, in effect, " You are not the member we *want*, but this year we are bound to choose a physician ", must at one stroke degrade both the man and the office.

* 1948, LXV, 35, 34.

† e.g. Secretary 1874–88, President-elect at age 44; 1894–1902, at 45; 1912–19 at 50; Assistant Editor 1883–89, President-elect at 41; 1900–12 at 51; 1912–22, at 47.

* * *

Blood Transfusion

" It is a mistake to suppose, as many of us do, that specialism in medicine or surgery is a modern innovation. . . . Great contributions to recent progress have mostly come from those who have had large opportunities for practical experience in relatively restricted fields." These sentences,

piously quoted from a Presidential Address of nearly forty years ago, remind us that even then human knowledge had become so extensive that no one man could be a master of the whole art of healing, or even of one of the major branches.*

The story of blood transfusion well illustrates the advances achieved by, and the necessity for, specialization. Formerly too dangerous to contemplate, the procedure became practical and valuable with the discovery of the well-known but variously named "four groups". "M and N" added a little to the complexity, and the numerous Rh factors very much. But what do we make of "Group B Rh-positive (CDe/CDe), MN, p, Le^a-positive, Kell-positive, Cellano-positive (presumably Kk)"?

Our esteemed elder brother, the *British Medical Journal*, has recently† directed attention to yet another hazard. During the last twelve years the use of blood and plasma transfusion has multiplied fifty times: and viral hepatitis is already a real menace. The virus is not very rare; there is no known method of inactivating it or even of detecting it before administration: apparently, therefore, anyone receiving a carefully "typed and matched" transfusion runs a one in ten risk of contracting a disease which is often crippling and not seldom fatal. It may well prove necessary to reorganize the whole system of "blood-banks", plasma distribution and so forth. But clearly we are back once again at the point where transfusion is to be risked only where it is essential to save life.

* "Each physician applies himself to one disease only, and not more. Some are physicians for the eyes, others for the head .... others for internal disorders." Herodotus II, 84.

† 11.11.50, p. 1103.

In Memoriam

JAMES FRANCIS BLACKETT

M.D., M.A., B.S., D.P.H.

Meetings of Societies

Bristol Medico-Chirurgical Society

The Annual General Meeting was held in the University building on Wednesday, October 11th. Mr. W. A. Jackman gave his Presidential Address (p. 1).

Officers for 1950

President: Mr. W. A. Jackman. *President-Elect:* Dr. Victoria Tryon.* *Treasurer:* Dr. G. E. F. Sutton. *Hon. Secretary:* Mr. A. L. Eyre Brook. *University Library:* Professors C. Bruce Perry, Milnes Walker and H. J. Drew Smythe. *Editor:* Mr. E. Watson-Williams. *Assistant Editor:* Dr. N. S. Craig.

Committee: Drs. Bain,* Beryl Corner,* MacLachlan,* Marwood, J. E. Lucas, Silvey, Gornal, Kersley.

The Honorary Secretary read his report for the past year, which was adopted with thanks: the membership of the Society reached 395. The Honorary Treasurer's report is embodied in the balance sheets on pp. 28, 29.

Editor's Report

Last year it was hoped that we might soon be able to relax at least some of the restrictions imposed by the need for economy. This hope faded before it appeared in print. Instead, during 1950, we have had considerable financial anxieties, owing to the great increase in charges for printing and publishing which came into effect in January. Unfortunately, most of our advertisement contracts had already been made for the year, and profits from advertisements were therefore small. By severe pruning and other economies we have just managed to pay our way: and desire again to express thanks to the contributors who so cheerfully submitted to the necessary, but probably none the less irksome, restrictions.

We have tried to do justice to the work of many local societies, but it seems doubtful whether we can continue this policy, unless we get more non-member subscriptions to the *Journal*. As already announced, the number of readers interested in " Reviews of Books " no longer justifies the retention of this feature. During the year we received for review thirty-nine books, of which the published price was £50; these have been handed over to the Medical Library, together with eighty-nine medical periodicals, priced at £114, received in exchange for the *Journal*. This sum of £164 is a contribution to the Library from readers of the *Journal*.

*Elected 1950.

BRISTOL MEDICAL-CHIRURGICAL SOCIETY

INCOME AND EXPENDITURE ACCOUNT for the year ended September 30th, 1950

EXPENDITURE

	£	s.	d.
To Subscriptions to *Medico-Chirurgical Journal*	307	4	0
,, Grant to Medical Library £25 0 0			
,, Lewis's Medical and Scientific Library 8 9 11			
	33	9	11
,, Librarian, Honorarium	15	0	0
,, Treasurer's Secretary Honorarium	10	0	0
,, Lecturer and Transport of Patients	12	13	0
,, Audit Fee	8	8	0
,, Printing and Stationery £39 16 11			
,, Printing Laws of the Society 19 15 0			
	59	11	11
,, Catering	78	17	6
,, Deficit on Reunion Dinner	43	11	1
,, Other Expenses *re* Meetings	7	7	0
,, Postages and Sundries	29	16	9
,, Surplus for the Year	23	16	2
	£629	15	4

INCOME

	£	s.	d.
By Members' Subscriptions	605	4	6
,, Interest on Bank Deposit Account	1	13	0
,, Refund by *Journal* (See *Journal* LXVII, 242, p. 62 footnote)	22	17	10
	£629	15	4

BALANCE SHEET, September 30th, 1950

LIABILITIES

	£	s.	d.
Sundry Creditors	53	13	3
Subscriptions paid in advance	1	11	6
Cash due to the *Journal*	359	8	2
Accumulated Fund, Sept., 1949 £532 16 2			
Add:			
Surplus on realization of £500 4 per cent. Consuls 85 9 6			
Surplus for year 1949–50 23 16 2			
	642	1	10
Deduct:			
Arrears of Subscriptions written off £113 6 6			
Payment to *Journal* (*q.v.*) 270 0 0			
383 6 6			
	258	15	4
	£673	8	3

ASSETS

	£	s.	d.	£	s.	d.
Cash at Bank:						
Current Account	62	0	7			
Deposit Account	443	15	8			
				505	16	3
Arrears of Subscriptions due				167	12	0
				£673	8	3

13 Meadow Street, Weston-super-Mare,
October 6th, 1950.

Audited and found correct.
C. J. RYLAND & CO., *Chartered Accountants.*

INCOME AND EXPENDITURE ACCOUNT for the year ended September 30th, 1950

EXPENDITURE

	£ s. d.	£ s. d.
Arrowsmith, Printing:		
January, 1950	160 19 2	
April	128 2 8	
July	149 15 10	
October (estimate)	150 0 0	
	588 17 8	
October, 1949 (estimate) ...	£152 11 4	
Cost	127 7 10	
Deduct	25 3 6	
		563 14 2
Auditors		3 3 0
		566 17 2
Surplus for 1950		257 16 8
		£824 13 10

INCOME

	£ s. d.	£ s. d.
Subscriptions:		
Members of Bristol Med. Chir. Society* ...		307 4 0
,, Torquay Med. Chir. Society		15 10 0
Non-members		12 12 6
Subscriptions due 1940–45 ...	£100 4 1	
Grant for 1946	169 15 11	
Total Voted in 1947		270 0 0
Advertisements, 1950:		
January	53 1 6	
April	58 18 9	
July	55 13 2	
October (estimate)	50 0 0	
1949, October:		
Received ...	£50 13 5	
Estimated ...	48 19 6	
Add	1 13 11	
		219 7 4
		£824 13 10

BALANCE SHEET, September 30th, 1950

LIABILITIES

	£ s. d.	£ s. d.
Arrowsmith for Printing:		
Due September, 1949 ...	372 10 6	
For 1950	563 14 2	
	936 4 8	
Advertisements £219 7 4		
Cash Paid ... 222 10 6		
Deduct ...	441 17 10	
		494 6 10
Auditors		3 3 0
		497 9 10
Surplus for 1950	257 16 8	
Deficit September, 1949 ...	95 2 5	
Surplus September, 1950 ...		162 14 3
		£660 4 1

ASSETS

	£ s. d.
Cash at Bank	290 15 11
,, due from Bristol Med. Chir. Society ...	359 8 2
,, ,, ,, Torquay Med. Chir. Society	10 0 0
(These sums included in " Income " above)	
	£660 4 1

Note. In addition we have received, too late for inclusion in the Balance Sheet, the sum of £26 15s 6d. for miscellaneous sales during 1945-50.

Audited and found correct.
C. J. RYLAND & CO., *Chartered Accountants.*

* It is not clear why only 384 subscriptions have been received although the *Journal* was delivered to 395 members.

The subjoined analysis shows very clearly that the only factor of any importance in the cost of production is the number of words—or pages. This may explain our almost morbid desire for terseness.

No.	Pages	Typesetting	Other Costs	Total Costs	Received for Advertisements
		£ s. d.	£ s. d.	£ s. d.	£ s. d.
241, January ..	41, xv	97 10 0	63 9 2	160 19 2	53 1 6
242, April ..	24, xvii	64 15 9	63 6 11	128 2 8	58 18 9
243, July ..	37, xvi	87 1 0	62 14 10	149 15 10	55 13 2
244, October ..	25, 4, xv	69 8 0	56 2 4	125 10 4	54 14 0
LXVII, 1950	127, lxiii	£318 14 9	£245 13 3	£564 8 0	£222 7 5

The Second Meeting of the session was a clinical meeting at the Bristol General Hospital on November 8th. The following cases were shown: pituitary necrosis, acromegaly, macrocytic anaemia, cystitis, Reiter's syndrome (urethritis, etc.), keratosis pharyngis, temporal arteritis, congenital heart disease, mycosis fungoides, psoriasis, rhadritis, neonatal meningitis, Sturge-Kalesche-Weber disease, haemorrhagic telangiectasis, angina pectoris (relieved by operation), intrathoracic goitre, gout; and many X-ray films.

April, 1951.—Mr. Howard K. Gray: **"Surgical Trends in America".**

May.—Dr. John Atley and Professor Milnes Walker: **"Diagnosis and Treatment of Congenital Heart Disease".**

Devon and Exeter Medico-Chirurgical Society

On October 26th Mr. Alexander gave an address on **"The Scope of Neuro-Surgery"**, which we hope to publish in our next issue.

Plymouth Medical Society

Calendar, 1951

Meetings at 8.30 p.m.

January 12th. Short papers.

February 2nd and 25th. Clinical Meetings.

February 16th. Professor R. Milnes Walker, M.S., F.R.C.S., **"The Spleen".**

Wednesday, March 16th, at 3.30 p.m. Clinical demonstration at Didworthy Sanatorium.

Mr. R. C. Brock will address the Plymouth Medical Society during the winter. The full fixture list will be published later.

British Medical Association

Gloucestershire Branch

Programme for 1951

January 11th, at Cheltenham. Mr. J. S. Robinson, F.R.C.S.: "**Injuries and Derangements of the Knee Joint**".

February 8th, at Gloucester. Subject to be announced.

March 8th, at Cheltenham. Mr. Ronald Belsey, Esq., M.S., F.R.C.S.: "**The Surgical Causes of Dysphagia**".

April 12th, at Gloucester. Clinical Meeting.

May 10th, at Stroud. Annual Meeting. Dr. A. Fewster Blake: "**Sixty Years' Retrospect**".

June 14th, at Gloucester. The President's Guest.

Officers for 1950–51

President: J. F. H. Stallman, F.R.C.S. *President-Elect:* H. Sandeman Allen, F.R.C.S. *Vice-President:* Dr. J. Greene, *D.S.O., M.C. Hon. Secretary:* Dr. E. W. Hyde (Royal Infirmary, Gloucester).

Council: R. G. Anderson, A. B. Cardew, C. Cookson, E. N. Davey, J. H. Grove-White, F. G. Lidderdale, F. C. Logan, J. C. Marklove, S. L. Marklove, R. W. H. Tincker, W. J. Wilkin, F. H. Woolley.

Bath, Bristol and Somerset Branch

President : Dr. W. J. Petty

Hon. Secretary : Dr. K. C. Bailey

Programme, 1951

February 7th, 1951.—Meeting at Bath.

April 4th, 1951.—Clinical Meeting at Bristol.

May 3rd, 1951.—Meeting at Taunton.

West of England and Wales Society of Dermatology

The Autumn meeting of the above Society was held in Bristol on Saturday, October 14th. Dr. R. P. Warin was in the Chair: seventeen members attended and the Society welcomed as its guest Dr. J. T. Ingram. Twenty-one cases were shown by Drs. C. D. Evans, R. P. Warin, E. Prettejohn, M. Hewitt, B. Brosnan and Sybil Jacob. These included: lipoid rheumatism (Parkes Weber); granulosis rubra nasi; Fox Fordyce disease in a male; recurrent herpetiform dermatitis repens; adenoma sebaceum (Pringle); erythema annulare centrifigum; dermatitis repens.

Future meetings, 1951: January 27th, at Newport; May 12th, at Plymouth.

South-Western Laryngological Association

On Saturday, October 14th, a very full meeting of this association was held at Exeter, in the pleasantly unspoiled surroundings of the Royal Devon and Exeter Hospital. Mr. Philip Scott and Mr. Hine provided a very well-balanced and interesting series of cases. In addition to a number of patients showing the successful result of operation for mastoid disease with intracranial complications, and for cancer of the larynx and of the sinuses, there were several cases of laryngral and other diseases for diagnosis, which provided material for a lively discussion. The next meeting will be in Bristol on January 6th.

Local Medical Notes

The Thirty-Ninth Long Fox Memorial Lecture was delivered in the University on Tuesday, October 17th, by Sir William G. Savage (p. 9). The chair was taken by Professor T. Hewer: six members of the Appointing Board were present, and thirty-three others—*rari in gurgite vasto.* The lecturer, as others have done, found difficulty in dealing with somewhat technical matter with a non-medical audience: such terms as "vi-agglutinin" and "enterotoxin" are not likely to be understood unless carefully explained—probably not even then!

Bristol Maternity Hospital

On Thursday, October 19th, Mrs. Winston Churchill, in a black velvet beret and a carefully impromptu speech, declared open the new Bristol Maternity Hospital at the corner of Durdham Downs, formerly the Queen Victoria Convalescent Home. Mr. H. L. Shepherd gave a most felicitous description of his encounter with that very rare bird, a "gold-crested W.R.N". The buildings were inspected and admired, the "gadget" that attracted most attention being the microphone fitted beside each bed to summon assistance.

Sir Humphry Davy

In memory of Sir Humphry Davy, described as "The father of Anaesthesia", a Tablet was unveiled on October 27th on the house at 6 Dowry Square, Hotwells; where he worked at the end of the eighteenth century as assistant to Dr. Beddoes, and discovered the anaesthetic properties of nitrous oxide. Dr. R. Woolmer was present, representing the United Bristol Hospitals. Representatives of the University, the Faculty of Medicine, the non-teaching hospitals, the local medical associations, societies and journals were not present: perhaps because they had not been invited. After all, the organisers probably did not suspect that any of these would be interested (cf. *Jl.* 1923, XL, 113).

List of Subscribers

It is proposed to publish the list of subscribers every third year, instead of annually. Unfortunately the list due this year is not yet ready, but will appear in the next issue.

Appointments

Mr. A. W. Adams, M.S., F.R.C.S.—Hunterian Professor, Royal College of Surgeons.

Professor J. M. Yoffey, M.D., F.R.C.S.—Arris and Gale Lecturer, Royal College of Surgeons.

Dr. Macdonald Critchley, F.R.C.P.—Visiting Professor in Neurology, University of Istanbul.

Dr. N. G. B. McLetchie.—Professor of Pathology, Dalhousie University, Halifax, Nova Scotia.

Mr. E. K. Tratman.—Professor of Dental Surgery, University College Hospital, London.

Dr. G. A. Smart, M.R.C.P.—Reader in Medicine at Durham University.

Professor R. J. Brocklehurst, M.A., D.M.—President, Physiology Section, British Association.

Dr. J. N. P. Davies.—Head of Department of Pathology at the Medical School, Kampala, Uganda.

Dr. Enid Addenbrooke, M.R.C.P., D.C.H.—Consultant Paediatrician, N. Gloucester Area.

C. H. Bartlett, F.R.C.S.—Consultant Surgeon, Bristol.

P. H. Beamish, D.M.R.D.—Consultant in Radiodiagnosis, Newcastle-on-Tyne.

D. R. F. Bertram, *O.B.E.*, M.B., D.M.R.—Consultant Radiologist, S. Somerset.

T. A. Brand, M.D.—Paediatrician, Newport and Monmouthshire Hospitals.

Roma Chamberlain, M.B., D.C.H.—Assistant M.O.H., Reading.

F. L. Dyson, M.D., M.R.C.P.—Consultant Physician, Mid-Glamorgan Hospital Group.

H. L. Ellis, M.D., M.R.C.P.—Consultant Paediatrician, Radcliffe Infirmary, Oxford.

G. Garmany, M.R.C.P., D.P.M.—Consultant Psychiatrist, Belmont Hospital, Surrey.

G. M. Gibb, M.B., D.P.M.; J. B. Phillips, M.D., D.P.M.—Psychiatrists, Bristol Mental Hospital.

H. W. Hall, F.R.C.S.—Consultant Orthopaedic Surgeon, Bath Area.

D. Jackson, M.B., D.P.M.—County Psychiatrist, Cornwall.

A. P. C. D. Thomson, D.M.R.—Consultant Radiologist, Bath Area.

G. H. Valentine, M.R.C.P.—Consultant Paediatrician, Peterborough Area.

J. C. Valentine, M.B.—Consultant Pathologist, Bedford General Hospital.

H. F. West, M.D., M.R.C.P.—Consulting Physician in Rheumatic Diseases, United Sheffield Hospitals.

Scholarships and Prizes

George Fawn Prize.—H. T. Jones.

David Rayner Prize.—W. A. W. Dutton.

Thomas Francis Edgeworth and Francis Henry Edgeworth Prize.—G. A. J. Aycliffe.

Bristol Royal Hospital Board's Gold Medal.—J. D. Sheward.

Bristol Royal Hospital Board's Silver Medal.—D. M. Gambier.

Degrees and Diplomas

University of Cambridge.—M.D.: A. Miller.

University of London.—M.D.: A. G. Freeman.

Royal College of Surgeons.—F.R.C.S.: J. C. Ballantyne. F.D.S.: W. E. Snawdon.

Royal Colleges of Physicians and Surgeons (Conjoint Board).—M.R.C.S., L.R.C.P.—Ginette M. Tebbutt.